## Remarks

In the Office Action mailed April 1, 2004:

1. Claims 1, 2, 4-6, 12-15 and 17-19 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,473,499 (Weir); and
2. Claims 3, 11, 16, 20 and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Weir and U.S. Patent No. 5,881,251 (Fung).

I. Weir (U.S. Patent No. 5,473,499)

### A. Weir Does Not Provide an Electronic Module for Live Connection with a Computer System

In claimed embodiments of the present invention (e.g., claim 1), an electronic module for live connection in a computer system is recited. The electronic module includes, among other components, a switch for disabling power to the live-connectable module until the module is grounded. Weir provides no disclosure of such an item.

Weir describes the configuration of a motherboard 2 to which an integrated circuit (IC) card 1 may be connected (FIG. 1). Weir indicates that the IC card is hot pluggable to the motherboard (column 1, lines 6-10), but the structure of the IC card is not described. Therefore the IC card cannot be considered to be "an electronic module for live connection with a computer system."

In order for the motherboard to correspond to Applicants' "electronic module for live connection with a computer system," it would have to be hot pluggable. The portions of Weir cited against the limitations of claim 1 pertain to the motherboard, but the motherboard is not described as being capable of live connection with a computer system.

Indeed, motherboards are generally understood to be the part of a computer system to which one would connect a hot pluggable component, rather than being a hot pluggable component itself. In short, one skilled in the art would not look to Weir or a motherboard to learn how to configure an electronic module for live connection with a computer system.

### B. Weir Does Not Employ a Switch Between a Load and Power for the Load

In one or more embodiments of the present invention (e.g., claims 1, 4, 11, 12, 17), a switch element for disabling powering of a load is in-line between a load and a power connection for the load (see Figures 2-3 of the present application), and isolates the load until ground is

connected.

In contrast, in Weir, switch 22 is positioned between a connector circuit 21 and a signal bus 26, while switch 23 is positioned between the connection circuit and a power bus 27. Neither of these switches is *between* a power connector and a load.

Each switch is independent of the other, and is controlled separately by controller 25. In addition, neither of the switches is connected to both the power line and a ground line, as recited in claim 1. Indeed, *neither* switch in Weir is connected to ground.

### C. Weir Does Not Employ a Switch to Disable a Power Line until a Ground Line is Connected

In embodiments of the present invention, a switch is used to prevent power from flowing to an inserted electronic module until ground is connected.

The purpose of Weir is very different. Switch 23 (connected to power bus 27) is closed when IC card 2 is inserted into connector 21 (column 2, lines 62-67). Only then is switch 22 (connected to signal bus 26) closed (column 3, lines 1-3).

## II. Fung (U.S. Patent No. 5,881,251)

### Fung Does Not Employ a Switch Between a Load and Power for the Load

In one or more embodiments of the present invention (e.g., claims 1, 4, 11, 12, 17), a switch element for disabling powering of a load is in-line with the power connection for the load (see Figures 2-3 of the present application). That is, the switch element is positioned between the power connector and the load

In contrast, in Fung, a switch circuit 50 is positioned between a board load and ground, and the load is connected directly to the power connector (Fig. 1; Fig. 2). The switch circuit may be considered to be positioned between the load and soft start connector 42, but the power supplied through the soft start connector does not power the load. Therefore, Fung appears to teach away from Applicants' configuration.

## III. Selected Claims

### A. Claims 1-3

Claim 1 recites an "electronic module for live connection with a computer system." As described in Section I.A, Weir does not describe such a module. Only the configuration of the motherboard is described, and the motherboard is not hot swappable.

Further, as described in Section I.B, neither switch is "coupled to said power line and said ground line between said power line and the load." Switch 22 is connected to connector 21, controller 25 and signal bus 26. Switch 23 is connected to connector 21, controller 25 and power bus 27. As shown in FIG. 1 of Weir, no switch is connected to ground 28.

**B. Claims 4-6**

As described in Section I.B, Weir does not teach or suggest the use of a switch *between a power connector and a load.* Weir describes two separate switches, but each is independently controlled by controller 25, to ensure that the signal switch is closed after the power switch.

**C. Claim 11**

Claim 11 is directed to an apparatus for establishing electrical connections to an interface module in a predetermined order, wherein the apparatus is inline between a voltage source for the module and a load of the module. As described in Section I.B, Weir describes the use of switches on a non-hot swappable motherboard, but each switch is inline with a separate line from a connector – neither is located between a voltage source (power bus) and a load (signal bus).

**D. Claims 12-16**

Claim 12 recites a hot swappable component having multiple elements. As described in Section I.A, Weir does not describe a hot swappable component having a power input, a ground and a switch.

Also, as described in Section I.B, neither switch in Weir is positioned between the component's power input and load.

**E. Claims 17-21**

The method of claim 17 recites a switch positioned between a load of the electronic module and the voltage connector supplying power to the load. As described in Section I.B, Weir does not disclose this.

## CONCLUSION

No new matter has been added with the preceding amendments. It is submitted that the application is in suitable condition for allowance. Such action is respectfully requested. If prosecution of this application may be facilitated through a telephone interview, the Examiner is invited to contact Applicant's attorney identified below.

Respectfully submitted,

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